UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 July 2007*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 14-21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 14-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 November 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   This action is responsive to the following communication: an Amendment

filed on July 10, 2007.

- Claims 6-13 rejection under 35 U.S.C. § 101 is hereby withdrawn

  since claims 6-13 have been cancelled.

- Claims 1-5 and 14-21 are pending.

- Applicant's arguments filed on July 10, 2007 have been fully

  considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

3.   Claims 1, 3-4, 14-15, 18-19 and 21 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Zhong el al (Zhong) (US 2004/0247034) in view of Clark

(US 6,142,942).

Regarding **claim 1**, Zhong discloses post-processed architecture, in that

he teaches a system suitable for adaptive post-processing of media data in an

electronic device (Figs 1-5, Para. [0001] and [0006]), the system comprising: a.

one or more post-processing modules (post-processing module 611 of Fig. 6),

the post-processing modules performing post-processing of the media data (such

as video image data, Para. [0036]), each post-processing module comprising one

or more processing modes with different complexities (such as post-processing

controller (PPC) 720, buffer 725, blocking filter 730 and ringing filter 740 of Fig. 7,

Para. [0038]); and b. an adaptive mode decision module {e.g. central processing

unit issues command for post-processing} coupled to the post-processing

modules (CPU 505/CIF 601 of Fig. 6, Para. [0010]), wherein the adaptive mode

decision module decides suitable processing modes to be used in the post-

processing modules (CPU issues command for post-processing, for example,

YUV to RGB color space conversion, Para. [0035]), the decision being based on

one or more values of input parameters (Para. [0035] & [0036]).

Zhong differs form claim 1, in that he does not teach that the input

parameters being representative of the state of the electronic device.

Clark discloses an ultrasound imaging system, in that he teaches that the

input parameters being representative of the state of the electronic device (an

input data power level, col 12, lines 25-46).

Therefore, it would have been obvious to one of ordinary skill in the art at

the time of the invention to have modified Zhong to include the input parameters

being representative of the state of the electronic device taught by Clark to

ensure focal strength and pulse repetition interval to maximize the contrast effect

(col 9, lines 25-30).

Regarding **claim 3**, Zhong differs form claim 3, in that he does not teach

wherein one of the input parameters is remaining battery power of the electronic

device.

Clark teaches wherein one of the input parameters is remaining battery

power of the electronic device (col 12, lines 25-46).

Regarding **claim 4**, Zhong differs form claim 4, in that he does not

expressly teach wherein one of the input parameters is processor usage of the

electronic device.

Clark teaches wherein one of the input parameters is processor usage of

the electronic device (Controller 69 of Fig. 2A & 2B, controller (processor) is

configured to generate the filter parameters based upon one or more signal

constraints that are input by a user/operator/designer and based upon one or

more sample signal statistics associated with one or more sample input or output

signals of col 2, lines 17-39).

Therefore, it would have been obvious to one of ordinary skill in the art at

the time of the invention to have modified Zhong for claims 3 and 4 to include

one of the input parameters is remaining battery power of the electronic device

and one of the input parameters is processor usage of the electronic device

taught by Clark to eliminate manual adjust filter settings (col 3 , lines 5-7).

Regarding **claim 14**, Zhong teaches a computer program product for use

with a computer (Computer System of Fig. 5), the computer program product

comprising a computer usable medium having a computer readable program

code embodied therein for adaptive post-processing of media data in an

electronic device (Figs 1-5, Para. [0001] and [0006]), the post-processing being

performed using one or more post-processing modules (Fig. 7, Para. [0034] &

[0036]), the post-processing modules comprising one or more processing modes

with different complexities (Figures 4-8, Para. [0039]), the computer program

code performing: b. selecting suitable processing modes for the post-processing

modules (Mode Check circuit 910 of Fig. 9, Para. [0045]), the selection being

based on the input parameters (Fig. 9, Para. [0059]), and the complexity of the

processing modes (Figures 2, 4, 8 and 9, Para. [0026], [0042] and [0059]) ; and

c. performing post-processing of the media data using the suitable processing

modes (Figures 2, 4, 8 and 9, Para. [0026], [0042] and [0059]).

Zhong differs from claim 14, in that he does not expressly teach that

obtaining one or more input parameters, the input parameters influencing the

post-processing of the media data.

Clark teaches that obtaining one or more input parameters (an input data

power level, col 12, lines 25-46), the input parameters influencing the post-

processing of the media data (col 12, lines 25-46).

Therefore, it would have been obvious to one of ordinary skill in the art at

the time of the invention to have modified Zhong to include the input parameters

being representative of the state of the electronic device taught by Clark to

ensure focal strength and pulse repetition interval to maximize the contrast effect

(col 9, lines 25-30).

Regarding **claim 15**, Zhong teaches wherein the computer program code

for obtaining the values of one or more input parameters comprises a computer

program code for continuously monitoring the values of the input parameters

(Figures 2-10, Para. [0039]).

Regarding **claim 18**, the structure elements of system claim 3 perform all

steps of computer program product claim 18. Thus claim 18 is rejected under

103(a) for the same reason discussed in the rejection of claim 3.

Regarding **claim 19**, the structure elements of system claim 4 perform all

steps of computer program product claim 19. Thus claim 19 is rejected under

103(a) for the same reason discussed in the rejection of claim 4.

Regarding **claim 21**, in accordance with claim 14, Zhong teaches wherein

the computer program code for selecting the suitable processing modes

comprises a computer program code including: a. obtaining a combination of

processing modes to be used for each input parameter value (Para. [0039]); b.

determining an overall complexity for each of the combinations corresponding to

the input parameter values (Para. [0030 & 0039]); and c. selecting the

combination of the processing modes having minimum overall complexity (Para.

0028}).

4.   Claims 2, 16 and 17 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Zhong el et (Zhong) (US 2004/0247034) in view of Clark (US

6,142,942) as applied to claims 1 & 14 above, and further in view of Maeda et al

(Maeda) (US 7,170,615).

Regarding **claim 2**, Zhong teaches wherein the adaptive mode decision

module comprises: (a). an input module (input device 512 and associated

memory of Fig 5, Para. [0033] and [0039]), the input module receiving the input

parameters (such as Y, U, V and other color input data, Para. [0039]), and (c). an

output module coupled to the input module and the table module, the output

module selecting the suitable processing modes of the post-processing modules

(Para. [0059]).

Zhong differs from claim 2, in that he does not teach that (b). a table

module relating the processing modes of the post-processing modules and all

possible values of the input parameters.

Maeda teaches that a table module relating the processing modes of the

post-processing modules and all possible values of the input parameters (a

management table of Fig. 4, col 14, lines 32-42).

Therefore, it would have been obvious to one of ordinary skill in the art at

the time of the invention to have modified Zhong to include a table module

relating the processing modes of the post-processing modules and all possible

values of the input parameters taught by Maeda to manage the image processing

so that appropriate image processing is applied to each inputted image data and

that time-wasting image processing is not applied to image data improperly

inputted (col 3, lines 11-16).

Regarding **claim 16**, Zhong teaches wherein the computer program code

for selecting the suitable processing modes comprises a computer program code

(Para. [0039]), and defining the suitable processing modes to be used for a given

range of input parameter values (Figures 7 & 9, Para. [0045]).

Zhong differs from claim 16, in that he does not teach that generating a table.

Maeda teaches that generating a table (col 14, lines 37-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Zhong to include generating a table taught by Maeda to manage the image processing so that appropriate image processing is applied to each inputted image data and that time-wasting image processing is not applied to image data improperly inputted (col 3, lines 11-16).

Regarding **claim 17**, Zhong teaches wherein the computer program code (Para. [0039]) comprises a computer program code for: a. obtaining the processing modes available in the post-processing modules (post-processing module 611 of Fig. 6 & Para. [0034]); b. obtaining all combinations of processing modes (Figures 2-10, Para. 0039 & 0045), each combination containing one processing mode from each processing module (Para. [0036]); c. obtaining output quality for each combination of the processing mode (Para. [0036]); d. arranging the combinations of processing modes in increasing order of complexity (Figs. 2-10, Para. 0035, 0036, 0039); e. eliminating the combinations that do not give higher quality compared to the combinations having lower complexity (Figs. 2-10, Para. 0035, 0036, 0039); and f. allocating ranges of input parameter values for each combination of processing modes (Fig. 9, Para. [0045]).

Zhong differs from claim 17, in that he does not teach that generating a table.

Maeda teaches that generating a table (col 14, lines 37-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Zhong to include generating a table taught by Maeda to manage the image processing so that appropriate image processing is applied to each inputted image data and that time-wasting image processing is not applied to image data improperly inputted (col 3, lines 11-16).

5.   Claims 5 & 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhong el et (Zhong) (US 2004/0247034) in view of Clark (US 6,142,942) as applied to claims 1 & 14 above, and further in view of Dugan et al (Dugan) (US 7,162,098).

Regarding **claim 5**, Zhong differs form claim 5, in that he does not expressly teach wherein one of the input parameters is user preference, the user preference indicating choice of output quality of the media data.

Dugan teaches that one of the input parameters is user preference {user choice}, the user preference indicating choice of output quality of the media data (col 3, lines 23-42 & col 6, lines 8-11)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Zhong to include one of the input parameters is user preference, the user preference indicating choice of output quality of the media data taught by Dugan to provide manual operation (col 6, lines 5-11).

Regarding **claim 20**, the structure elements of system claim 5 perform all steps of computer program product claim 20. Thus claim 20 is rejected under 103(a) for the same reason discussed in the rejection of claim 5.

Conclusion

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Kau whose telephone number is 571-270-1120 and fax number is 571-270-2120. The examiner can normally be reached on M-F, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on 571-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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September 10, 2007

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